



Project Delivery Network

Aesthetics/Landscaping Design QC Checklist

Version
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Introduction

The Project Delivery Network Structure QC Checklist is to be used with the [UDOT QC/QA Procedures](#). This checklist is a tool to assist the project team in verifying all work is produced with due diligence, using acceptable industry standard techniques, available resources and data, and reasonable decisions by competent professionals. The checklist is a tool for the delivery of quality documents and cannot replace the sound judgment and experience of competent professionals. It is the Design Team's responsibility to verify the quality of project documents **before** distribution.

Checklist Instructions

For each deliverable listed, the QC Checker is to verify all items listed in the checklist are complete, along with any additional items the QC Checker deems necessary. The checklist items are not to be interpreted as the only items that need to be verified.

Once all items are verified, the Verifier is to sign the associated cover sheet and upload it onto ProjectWise. The QC is not complete until the cover sheet is signed, dated, and uploaded onto ProjectWise. See the [Project Delivery Network QC/QA Procedure](#) for the appropriate cover sheet.

QC reviews are to be completed **before** distribution.

The following explanations are to aid in completing the QC checklist items:

- A checklist item deemed "complete", "correct", or "accurate" does not denote that the item is perfect, but rather that the item satisfies design criteria based on known information, acceptable techniques, and sound judgment."
- A checklist item deemed "addressed" denotes the item as "reviewed all known concerns and verified the concerns are appropriately mitigated and satisfy design criteria." Addressed concerns are not necessarily incorporated into the design, but satisfactorily mitigated.
- A checklist item deemed "identified" denotes the item as "an acceptable and economical approach to satisfy design criteria based on known information."
- A checklist item deemed "verified" denotes the item as "verified the approach/conclusion as acceptable based on known information."
- Use the check boxes to verify the checklist items are complete. If a checklist item is *not applicable* to the current project, place an NA over the check box.
- Use the comment sections of the cover sheet to address exceptions, assumptions, and unique aspects of the project. The comments will help others understand why certain decisions were made and their impacts on the project.

2A1 Develop Aesthetics and Landscaping Conceptual Design

Create the overall project aesthetics and landscape conceptual design. Coordinate with other disciplines to incorporate features that enhance the project aesthetics.

References

1. [UDOT Aesthetics Guidelines](#)
 2. [Project Aesthetics Plan Development and Review](#)
 3. Project Preliminary Aesthetics and Landscaping Assessment Form
 4. [UDOT CADD Standards](#)
 5. [UDOT Project Delivery Network](#)
 6. [UDOT QC/QA Procedures](#)
 7. [UDOT Practical Design Guide](#)
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Project Aesthetics and Landscaping Conceptual Design Package

1. ☐ All comments from the Scoping Meeting are addressed.
2. ☐ All recommendations from maintenance are addressed.
3. ☐ The local municipality needs are clearly defined and addressed in the design.
4. ☐ For all municipality betterments, a letter of commitment is complete and signed.
 - a. ☐ Clearly defines all expectations.
 - b. ☐ Identifies responsible party for maintenance.
 - c. ☐ Contains requested betterments.
5. ☐ The theme is appropriate and within project budget.
6. ☐ The theme is consistent with project goals, environmental commitments and current aesthetic themes.
7. ☐ The conceptual design meets environmental, state, and federal guidelines and requirements.
8. ☐ The conceptual design drawings/renderings/elevations/perspectives adequately show how the design theme is applied.
 - a. ☐ Drawings are to scale.
 - b. ☐ Anticipated textures are adequately indicated.
 - c. ☐ Adequate details of textural relief depths provided.
 - d. ☐ Colors are appropriately applied and illustrated (federal standard 595B).
 - e. ☐ The design theme is adequately indicated for all structural elements.
9. ☐ The landscape treatment plan adequately depicts the generalized levels of landscape treatment.
 - a. ☐ High, medium, and low levels are properly distinguished.
 - b. ☐ The treatments included in each level is indicated and appropriate.
 - c. ☐ Hardscapes and softscapes are distinguished and appropriate.

4R3 Continued

- d. ☐ The landscape palette is included.

3A1 Complete Aesthetics and Landscaping Design

Create the overall project aesthetics and landscape conceptual design. Coordinate with other disciplines to incorporate features that enhance the project aesthetics.

References

1. [UDOT Aesthetics Guidelines](#)
 2. [Project Aesthetics Plan Development and Review](#)
 3. [UDOT CADD Standards](#)
 4. [UDOT Plan Sheet Development Standards](#)
 5. [UDOT Project Delivery Network](#)
 6. [UDOT QC/QA Procedures](#)
 7. [Estimate Review Checklist](#)
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Final Aesthetics Plan

1. ☐ All comments from the Geometry Review Meeting are addressed.
2. ☐ All comments from the Municipality are addressed. (i.e. betterments, municipal expectations)
3. ☐ All comments from the Aesthetic Committee are addressed.
4. ☐ Aesthetic plans are complete.
 - a. ☐ Plan sheets conform to *UDOT Plan Sheet Development Standards*.
 - b. ☐ CADD standards are followed and maintained on each sheet.
 - c. ☐ All text, notes, callouts, etc. are correct.
 - d. ☐ Drawings show how aesthetic treatments are applied to all structural elements.
 - e. ☐ All drawings and details necessary to construct the aesthetic treatments are included.
 - i. ☐ Abutments
 - ii. ☐ Parapets
 - iii. ☐ Bridge monuments
 - iv. ☐ Piers and caps
 - v. ☐ Girders
 - vi. ☐ Retaining walls
 - vii. ☐ Noise walls
 - viii. ☐ Wing walls
 - ix. ☐ Lighting and foundations
 - x. ☐ Railings/Fences
 - xi. ☐ Barriers
 - xii. ☐ Slope paving

3A1 Continued

- f. ☐ Surface treatments for each structural element are complete.
- g. ☐ Details for textural patterns and relief depths are complete.
- h. ☐ Transitions or connections between various elements are shown and tie into the design theme.
- i. ☐ The design theme relates to all structural elements.

Landscape/Irrigation/Site Plan Design

- 1. ☐ All comments from Geometry Review Meeting are addressed.
- 2. ☐ All Aesthetic Committee comments are addressed.
- 3. ☐ The final schematic landscape drawings are complete.
 - a. ☐ The design meets state and local municipality requirements.
 - b. ☐ Plant layout, types, and sizes are appropriate for the theme and budget.
 - c. ☐ Decorative rock mulch size and color is appropriate for the theme and budget.
 - d. ☐ Bark mulch areas are indicated and appropriate for the theme and budget.
 - e. ☐ Landscape boulders are appropriate for the theme and budget.
 - f. ☐ Mow strips indicated are appropriate for the theme and budget.
 - g. ☐ Grading is appropriate for the theme and budget.
- 4. ☐ The final schematic irrigation drawings are complete.
 - a. ☐ The design meets the needs of the project.
 - b. ☐ The design meets state and local municipality requirements.
 - c. ☐ Irrigation schematic conforms to municipal requirements.
 - d. ☐ Irrigation zones for planting are adequate.
 - e. ☐ Utility companies and/or municipal approve all connection points.
 - f. ☐ Each irrigation system is adequate and complete.
- 5. ☐ The final schematic streetscape design or site layout is complete.
 - a. ☐ The design meets project requirements.
 - b. ☐ The design meets state and local municipality requirements.
 - c. ☐ Sidewalk/hardscape and park strip treatments are appropriate.
 - d. ☐ All planters, trash receptacles, picnic tables, benches, kiosks, and monuments are appropriate and necessary details included.
 - e. ☐ Transportation building designs are complete and meet requirements.
 - f. ☐ Parking layout design is complete and meets requirements.
 - g. ☐ Trails, trail signage, and interpretive signage designs are complete and meet requirements.

Aesthetics/Landscape Cost Estimate

1. ☐ The Aesthetics/Landscape cost estimate was verified using the [Estimate Review Checklist](#) (found at the end of this document).

Aesthetics/Landscape Agreements

1. ☐ All landscape improvements, ornamental lighting, and/or powder coated poles are incorporated into the agreements.
2. ☐ All commitments are clearly defined.
3. ☐ All betterments are included with accurate cost estimate.
4. ☐ The aesthetic/landscape agreements are complete.

4A1 Complete Erosion & Sediment Control Plans and Documents

Develop the project erosion and sediment control design. Complete the erosion and sediment control plans and create summaries. Prepare and assemble erosion and sediment control project documents, including plans, special provisions, and Engineer's Estimate in PDBS.

References

1. [UDOT Storm Water Information and Permitting Website](#)
 2. [UDOT Erosion and Sediment Control Field Guide](#)
 3. [UDOT Erosion and Sediment Control Manual](#)
 4. [UDOT CADD Standards](#)
 5. [UDOT Plan Sheet Development Standards](#) (PSDS)
 6. [UDOT Standard and Supplemental Drawings](#)
 7. [UDOT Standard and Supplemental Specifications](#)
 8. [Specification Writer's Guide](#)
 9. [Measurement and Payment Template](#)
 10. [Acceptance and Documentation Guide](#)
 11. Project Development Business System
 12. [Estimate Review Checklist](#)
 13. [UDOT Project Delivery Network](#)
 14. [UDOT QC/QA Procedures](#)
 15. [UDOT Practical Design Guide](#)
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Erosion and Settlement Control Plans

1. ☐ The design conforms to the [UDOT Erosion and Sediment Control Field Guide](#).
 - a. ☐ All disturbed soil is adequately stabilized.
 - b. ☐ Storm water runoff is adequately captured and removed.
2. ☐ The design complies with UPDES requirements.
3. ☐ All phases of construction are adequately addressed.
4. ☐ Temporary erosion and sediment control are appropriate and adequate.
5. ☐ Best management practices are used as much as possible.
6. ☐ Seeding areas and schedules are appropriate
7. ☐ All plan sheets conform to [UDOT Plan Sheet Development Standards](#). (5)
 - a. ☐ *PSDS General Plan Sheet Requirements* are followed.
 - b. ☐ Call-out rules are followed.
 - c. ☐ All title blocks are filled out correctly.
 - d. ☐ All bid items are called out correctly.
 - e. ☐ All stationing, northing/easting, curve data are correct.
 - f. ☐ All referenced sheet and detail numbers are correct.
 - g. ☐ All necessary labels, callouts, identifiers, symbols, and notes are provided and correct.

4A1 Continued

- h. ☐ CADD standards are maintained on each sheet.
- 8. ☐ **Erosion and sediment control sheets** are complete.
 - a. ☐ All temporary erosion and sediment control measures are correctly identified.
 - b. ☐ All permanent stabilization requirements are correctly identified.
 - i. ☐ Topsoil depth, limits, and total area are correctly identified.
 - ii. ☐ Seed schedule, limits, and total area are correctly identified.
 - iii. ☐ Mulch limits and types are correctly identified.
 - iv. ☐ Erosion control blanket limits and total area are correctly identified.
 - v. ☐ Rock of fabric lined ditches/swales limits and total are correctly identified.
- 9. ☐ **Detail sheets** are complete. (See PSDS – Detail Sheet Requirements)
 - a. ☐ All necessary details to build the project are included.
 - b. ☐ All details conform to UDOT standards.
 - c. ☐ The *PSDS DT Sheet Checklist* items are complete.
 - d. ☐ All details are labeled and dimensioned completely and correctly.
 - e. ☐ All necessary labels, callouts, identifiers, symbols, and notes are provided and correct.
- 10. ☐ **Summary sheets** are complete. (See PSDS – Summary Sheet Requirements)
 - a. ☐ The *PSDS Summary Sheet Requirements* are followed and complete.
 - b. ☐ UDOT standard summary sheets are used.
 - c. ☐ All pay items are included in the summary.
 - d. ☐ All pay item names, alignment designations, stations, offsets, units, and quantities are correct.
 - e. ☐ All quantities are correctly calculated.
 - f. ☐ All summaries are exported from Excel to Microstation and the sheets are updated with the current Excel version.
 - g. ☐ All summary items and quantities are exported into PDBS

Erosion and Settlement Cost Estimate

- 1. ☐ The Aesthetics/Landscape cost estimate was verified using the [Estimate Review Checklist](#) (found at the end of this document).

Erosion and Settlement Project Documents

- 1. ☐ The **Special Provisions** are complete. (8)

4A1 Continued

- a. ☐ All special provisions conform to the [Specification Writer's Guide](#) (verify using Chapter 11 Checklist). (8)
 - b. ☐ A special provision has been created for each non-standard item.
 - c. ☐ All general and project specific special provision content is accurate, complete, and does not contain anything unnecessary
2. ☐ The **Measurement & Payment** is complete. (9)
- a. ☐ All M&P items match pay items exactly.
 - b. ☐ For all non-standard pay items, a complete and correct M&P description of all effort and materials is included.
 - c. ☐ All units are correct.
3. ☐ The **Acceptance & Documentation** is complete. (10)
- a. ☐ All A&D items match pay items exactly.
 - b. ☐ For all non-standard pay items, a complete and correct A&D is included.

4A2 Complete Aesthetics & Landscape Plans and Documents

Revise design based on review comments. Complete landscape, irrigation, and site plans and documents.
Finalize the aesthetic and landscaping cost estimates.

References

1. [UDOT Aesthetics Guidelines](#)
 2. [Project Aesthetics Plan Development and Review](#)
 3. [UDOT Plan Sheet Development Standards](#) (PSDS)
 4. [UDOT CADD Standards](#)
 5. [Specification Writer's Guide](#)
 6. [Measurement and Payment Template](#)
 7. [Acceptance and Documentation Guide](#)
 8. [UDOT Project Delivery Network](#)
 9. [UDOT QC/QA Procedures](#)
 10. [Estimate Review Checklist](#)
 11. [UDOT Practical Design Guide](#)
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Landscape/Irrigation/Site Plan Sheets

4. ☐ All review comments are addressed.
5. ☐ All revisions to the designs meet UDOT, local, and project requirements.
6. ☐ All plan sheets conform to [UDOT Plan Sheet Development Standards](#). (3)
 - a. ☐ *PSDS General Plan Sheet Requirements* are followed.
 - b. ☐ Call-out rules are followed.
 - c. ☐ All title blocks are filled out correctly.
 - d. ☐ All bid items are called out correctly.
 - e. ☐ All stationing, northing/easting, curve data are correct.
 - f. ☐ All referenced sheet and detail numbers are correct.
 - g. ☐ All necessary labels, callouts, identifiers, symbols, and notes are provided and correct.
 - h. ☐ CADD standards are maintained on each sheet.
7. ☐ **Landscape** plan sheets are complete.
 - a. ☐ All surface treatments are correctly identified.
 - b. ☐ All materials are correctly identified.
 - c. ☐ All grading is correctly identified.
 - d. ☐ All plantings are identified correctly.
 - e. ☐ All topsoil depths are correct.
 - f. ☐ The seed schedule is included correctly.
8. ☐ **Irrigation** plan sheets are complete.

4A2 Continued

- a. ☐ All irrigation components are correctly identified.
- b. ☐ The irrigation legend includes all symbols.
- c. ☐ 90 day irrigation establishment and final irrigation schedules are included.
- 9. ☐ **Streetscape and site plan sheets** are complete.
 - a. ☐ All site plan elements and treatments are correctly identified.
- 10. ☐ **Detail sheets** are complete. (See PSDS – Detail Sheet Requirements)
 - a. ☐ All necessary details to build the project are included.
 - b. ☐ All details conform to UDOT standards.
 - c. ☐ The *PSDS DT Sheet Checklist* items are complete.
 - d. ☐ All details are labeled and dimensioned completely and correctly.
 - e. ☐ All necessary labels, callouts, identifiers, symbols, and notes are provided and correct.
- 11. ☐ **Summary Sheets** are complete. (See PSDS – Summary Sheet Requirements)
 - a. ☐ The *PSDS Summary Sheet Requirements* are followed and complete.
 - b. ☐ UDOT standard summary sheets are used.
 - c. ☐ All pay items are included in the summary.
 - d. ☐ All pay item names, alignment designations, stations, offsets, units, and quantities are correct.
 - e. ☐ All quantities are calculated correctly.
 - f. ☐ All summaries are exported from Excel to Microstation and the sheets are updated with the current Excel version.
 - g. ☐ All summary items and quantities are exported into PDDBS.

Erosion and Settlement Cost Estimate

- 1. ☐ The Aesthetics/Landscape cost estimate was verified using the [Estimate Review Checklist](#) (found at the end of this document).

Landscape/Irrigation/Site Plans Project Documents

- 1. ☐ The **Special Provisions** are complete. (5)
- 12. ☐ All special provisions conform to the [Specification Writer's Guide](#) (verify using Chapter 11 Checklist). (5)
 - a. ☐ A special provision has been created for each non-standard item.
 - b. ☐ All general and project specific special provision content is accurate, complete, and does not contain anything unnecessary.

4A2 Continued

2. ☐ The **Measurement & Payment** is complete. (6)
 - a. ☐ All M&P items match pay items exactly.
 - b. ☐ For all non-standard pay items, a complete and correct M&P description of all effort and materials is included.
 - c. ☐ All units are correct.
3. ☐ The **Acceptance & Documentation** is complete. (7)
 - a. ☐ All A&D items match pay items exactly.
 - b. ☐ For all non-standard pay items, a complete and correct A&D is included.

5A1 Prepare SWPPP Package for Construction

Prepare the SWPPP package and submit to the Resident Engineer.

References

1. [Utah Department of Environmental Quality, Division of Water Quality](#)
 2. SWPPP Template
 3. SWPPP Template Guidelines
 4. General SWPPP Information
 5. [UDOT Project Delivery Network](#)
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SWPPP Package

1. ☐ The project SWPPP is complete and correct.
 - a. ☐ The template instructions were followed.
 - b. ☐ All project information is correct.
 - c. ☐ All applicable sections are correct.

Estimate Review Checklist

Provide review checklist of all design cost estimates.

References

1. [Estimating – Roadway Design Manual of Instruction](#) (Section 7.19)
 2. [Estimator's Corner Website](#)
 3. [UDOT Project Delivery Network](#)
 4. Project Development Business System
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Estimate (applies to every stage for updating the estimate)

1. ☐ All required bid items are included.
2. ☐ All quantities and units are correct.
3. ☐ All standard bid items match UDOT standard bid items exactly.
4. ☐ Unit prices were estimated using UDOT approved methods (PDBS, local contractors, etc.).
5. ☐ All unit price estimates are documented.
6. ☐ Unit prices reflect the following: (1)
 - a. ☐ Location
 - b. ☐ Time of year for advertising
 - c. ☐ Complexity of constructability
 - d. ☐ Quantity of item
 - e. ☐ Limitations of operation
 - f. ☐ Current bidding environment
 - g. ☐ Availability of materials
 - h. ☐ Familiarity of a process
 - i. ☐ Specialty equipment
 - j. ☐ Risk to contractor
 - k. ☐ Inflation
 - l. ☐ Construction schedule
7. ☐ Lump sum bid prices are used only when appropriate (i.e. unit pricing is too difficult).
8. ☐ All lump sum bid prices considered the following:
 - a. ☐ Contractor risk due to unknown quantity
 - b. ☐ Difficulty in making it a unit price pay item

Additional PS&E Estimate

9. ☐ All bid items, quantities, and units match the plan sheet callouts, summary sheets, and M&P exactly.